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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,195	09/13/2000	Tomoaki Hokao	Q60810	7594

7590 01/15/2004

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EXAMINER	
MOORE, IAN N	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/661,195	HOKAO, TOMOAKI	
	Examiner	Art Unit	
	Ian N Moore	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-42 is/are pending in the application.

4a) Of the above claim(s) 5-14,26-28,32,41-42 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-4,15-25,29-31,33-40 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. **Claims 5-14, 26-28, 32, and 41-42** objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the **claims 5-14, 26-28, 32, and 41-42** not been further treated on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 15, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Losh (U.S. 6,173,181).

Regarding Claims 1, 15, and 29, Losh'181 discloses a mobile communication terminal equipment (see Fig. 4, a subscriber unit 50) for a CDMA cellular phone system (see col. 7, line 40-41; CDMA cellular communication system), a control method for cell detection, and a recoding medium (see FIG. 4, Memory 58) recording a program for a control method, comprising:

detection means (see FIG. 4, Scanner 66 which couples to antenna 54) for performing cell detection by detecting scramble codes (i.e. neighborhood cell identifiers) of a visiting

cell and neighboring cell (see Fig. 4, neighbor scan list 68 contains a visiting cell and neighboring cell; see col. 7, line 65 to col. 8, line 3; and col. 4, line 40-56; note that the scanner measures/detects the characteristic of received signal from other cells (i.e. neighbors and visiting cells), and each other cell is identified by their identification (i.e. PN codes or scrambling codes));

memory means (see FIG. 4, Memory 58) for storing a scramble code (see FIG.4, Candidate scan list 60 and mode instructions 62; see col. 7, line 42-45; a plurality of neighbor scan lists which are sorted per preference (i.e. candidate scan lists) are stored in the memory; thus, it is clear that each neighbor list must contain an identification code (i.e. PN codes or scrambling codes) in order to identify each neighboring cell.);

control means (see FIG.4, Controller 56) for controlling to write the scramble codes of the visiting cell and neighboring cell, detected by said detection means, into said memory means (see col. 7, line 42-45; note that the controller stores/writes a plurality of neighbor scan lists in the memory); and

measurement means (see FIG. 4, Scanner 66) for measuring detection frequencies of the scramble codes (see Fig. 4, candidate neighbor scan list (i.e. the candidate list which consists of scanned neighboring cells); see col. 5, line 40-55; note that in order for the scanner to scan/search/detect the cell site, it must utilize the candidate list stored in the memory, and the stored candidate list contains the number of times each cell site is detected/scanned (i.e. Neighbor scan list in idle mode, see FIG. 6, and active mode, see FIG. 7)) and intra-cell stay times (see Fig. 5-7; also see col. 7, line 9-34 and col. 8, line 1-12; not that each neighbor cell site is stored in the memory as the candidate scan list, and it is

updated according to the scanned/measured results. The search/measurement must include the time duration of how long a particular cell site is stored in the memory (i.e. the time duration of a mobile station within a particular cell). Thus, it is clear that the large number of cell sites (i.e. the cell sites which the subscriber unit usually uses to establish/receive a call) must be stored in the memory of the candidate list and mode instruction for the longest time since the subscriber unit mostly frequently utilizes these cells.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2-4, 16-24, 30,31, and 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Losh'181 in view of Seppanen (U.S. 5,903,832).

Regarding Claims 2, 16, and 30, Losh'181 discloses an equipment, method, and a medium wherein said control means performs control so as to store the scramble codes in said memory as described above in Claims 1, 15, and 30.

Losh'181 does not explicitly disclose storing the codes in said memory means in response to user operation.

However, the above-mentioned claimed limitations are taught by Seppanen'832. In particular, Seppanen'832 teaches storing the codes (see Fig. 24, plurality of data blocks 25_1-

25_n; see col. 5, line 66 to col. 5, line 9; note that various cellular system parameter and the number assignments identifies each network (i.e. a network/cell PN code)) in said memory means in response to user operation (see Fig. 3A, and 4B; col. 4, line 16-53; each user has a capability to "manually" select and store the preferred system parameters (i.e. network/cell site) in the memory (see Fig. 24, Memory 24) of a mobile station.)

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a user to select and store preferred cell site/network, as taught by Seppanen'832. The motivation to combine is to obtain the advantages/benefits taught by Seppanen'832 since Seppanen'832 states at col. 3, line 40-45 that such modification would make it possible to provide an efficient and simple technique for enabling a user of a mobile terminal or station to manage, prioritize, and select between available systems.

Regarding Claims 3, 17, and 31, Losh'181 discloses an equipment, method and medium wherein said control means performs control so as to store the scramble codes in said memory means in accordance with the detection frequencies of the scramble codes as described above in claims 1, 15, and 29.

Losh'181 does not explicitly disclose automatically store the codes in said memory means.

However, the above-mentioned claimed limitations are taught by Seppanen'832. In particular, Seppanen'832 teaches automatically store the codes (see Fig. 24, plurality of data

blocks 25_1-25_n; see col. 5, line 66 to col. 5, line 9; note that various cellular system parameter and the number assignments identifies each network (i.e. a network/cell PN code)) in said memory means (see col. 3, line 15-30; and col. 4, line 5-29; the mobile station automatically stores various network/cell sites in the in the memory (see Fig. 24, Memory 24).)

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a mobile station to automatically store the cell sites/networks, as taught by Seppanen'832. The motivation to combine is to obtain the advantages/benefits taught by Seppanen'832 since Seppanen'832 states at col. 3, line 45-50 that such modification would make it possible to provide a mobile terminal or station to have automatic network selection capability and temporary network selection capability by network name.

Regarding Claims 4 and 18, Losh'181 discloses an equipment and method wherein said control means performs control so as to store the scramble codes in said memory means in accordance with the intra-cell stay times as described above in claims 1, 15, and 29.

Losh'181 does not explicitly disclose automatically store the codes in said memory means.

However, the above-mentioned claimed limitations are taught by Seppanen'832. In particular, Seppanen'832 teaches automatically store the codes (see Fig. 24, plurality of data blocks 25_1-25_n; see col. 5, line 66 to col. 5, line 9; note that various cellular system parameter and the number assignments identifies each network (i.e. a network/cell PN code)) in said

memory means (see col. 3, line 15-30; and col. 4, line 5-29; the mobile station automatically stores various network/cell sites in the in the memory (see Fig. 24, Memory 24).)

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a mobile station to automatically store the cell sites/networks, as taught by Seppanen'832, for the same motivation as stated above in Claim 3, 17, and 31.

Regarding Claims 19 and 33, Losh'181 discloses a method and medium wherein the storage step comprises storing the scramble codes in the memory means in detecting operation as described above in claims 15 and 29.

Losh'181 does not explicitly disclose storing the codes in the memory means upon assigning priorities.

However, the above-mentioned claimed limitations are taught by Seppanen'832. In particular, Seppanen'832 teaches storing the codes (see Fig. 24, plurality of data blocks 25_1-25_n; see also col. 5, line 66 to col. 5, line 9; note that various cellular system parameter and the number assignments identifies each network (i.e. a network/cell PN code)) in the memory means upon assigning priorities (see col.3, line 1-30; col. 4, line 5-29; the mobile station automatically prioritizes various network/cell sites (i.e. home area being a higher priority than others) in the memory (see Fig. 24, Memory 24), or the user manually prioritizes various network/cell sites by selecting and storing in the memory.)

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a mobile station to automatically store the cell sites/networks according to the priorities, as taught by Seppanen'832. The motivation to combine is to obtain the advantages/benefits taught by Seppanen'832 since Seppanen'832 states at col. 3, line 45-50 that such modification would make it possible to provide a mobile terminal or station to have automatic network selection capability and temporary network selection capability by network name and a capability for setting parameters and priorities of networks.

Regarding Claims 20 and 34, Losh'181 discloses a method and medium wherein the detection step comprises performing cell detection by using the scramble codes stored in the memory means as described above in claims 15, 19 and 29,33.

Losh'181 does not explicitly disclose performing cell detection by preferentially using the codes stored in the memory means.

However, the above-mentioned claimed limitations are taught by Seppanen'832. In particular, Seppanen'832 teaches performing cell detection by preferentially using the codes (see Fig. 24, plurality of data blocks 25_1-25_n; see also col. 5, line 66 to col. 5, line 9; note that various cellular system parameter and the number assignments identifies each network (i.e. cell site);) stored in the memory means (see col.3, line 1-30; col. 4, line 29-53 and col. 7, line 54 to col. 8, line 50; the user manually prioritizes various network/cell sites by selecting/preferring and storing in the memory. Once the user stores the selected/preferred

cell/network in the memory, the mobile station performs cell detection and registration according to the list of selected/preferred cell or network site.)

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a mobile station to performs cell detection and registration according to the selected/preferred cell/network site, as taught by Seppanen'832. The motivation to combine is to obtain the advantages/benefits taught by Seppanen'832 since Seppanen'832 states at col. 3, line 45-50 that such modification would make it possible to enable a user of a mobile terminal or station to manage, prioritize, and select between available systems.

Regarding Claims 21 and 35, Losh'181 discloses a method and medium wherein the detection step comprises performing cell detection by using a plurality of scramble codes, stored in the memory means, in the order of priorities as described above in claims 15, 19 and 29, 33.

Losh'181 does not explicitly disclose a plurality of codes, stored in the memory means, in the descending order of priorities.

However, the above-mentioned claimed limitations are taught by Seppanen'832. In particular, Seppanen'832 teaches a plurality of codes (see Fig. 24, plurality of data blocks 25_1-25_n; see also col. 5, line 66 to col. 5, line 9; note that various cellular system parameter and the number assignments identifies each network (i.e. cell site)), stored in the memory means, in the descending order of priorities (col. 4, line 16-28; the cell/network site list

stored in the memory is prioritized is such as way that the higher the level on the list, the higher the priorities (i.e. the high priority to low priority on the list), and thus it is prioritized in descending order.)

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a mobile station to store the cell sites/networks according by priorities from high to low, as taught by Seppanen'832, for the same motivation that stated above in Claim 19 and 33.

Regarding claims 22 and 36, the combined system of Losh'181 and Seppanen'832 discloses wherein the detection step comprises performing cell detection by using a scramble code stored in the memory means as stated above in Claims 16 and 30. Furthermore, Seppanen'832 discloses performing cell detection by using a scramble code other than the scramble codes stored in the memory means when cell detection cannot be performed by using the scramble codes stored in the memory means (see col.3, line 1-30; col. 4, line 5-29; the mobile station automatically prioritizes various network/cell sites (i.e. home area being a higher priority than others) in the memory (see Fig. 24, Memory 24), or the user manually prioritizes various network/cell sites by selecting and storing in the memory. Moreover, when the mobile unit is in a particular network/cell site whose identification (i.e. scramble code) is not stored in the memory, then the mobile unit must use the other available network/cell site and its identifier stored in the memory.)

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a mobile station, which is in a particular cell/network whose identification is not stored in the mobile memory, to utilizes other cell site/network and its identification stored in the memory, as taught by Seppanen'832. The motivation to combine is to obtain the advantages/benefits taught by Seppanen'832 since Seppanen'832 states at col. 3, line 45-50 that such modification would make it possible to provide a mobile terminal or station to have automatic network selection capability and temporary network selection capability by network name and a capability for setting parameters and priorities of networks.

Regarding claims 23 and 37, the combined system of Losh'181 and Seppanen'832 discloses wherein the detection step comprises performing cell detection by using a scramble code as stated above in Claims 22 and 36 above. Furthermore, Seppanen'832 discloses cell detection by preferentially using a scramble code exhibiting a high detection frequency in the past (see col.3, line 1-30; col. 4, line 5-29; see col. 7, line 10-49; note that when the mobile unit is in a particular network/cell site whose identification (i.e. scramble code) is not stored in the memory, then, the mobile unit must use the other available network/cell site and its identifier stored in the memory. The preference/priority of selecting the network/cell site is based upon the network/cell site that the mobile unit accesses the most (i.e. higher priority network). Thus, it is preferable to use the network/cell site that a mobile unit accesses the most in such scenario.)

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a mobile station, which is in a particular cell/network whose identification is not stored in the mobile memory, to utilizes other cell site/network and its identification where the mobile unit accesses/utilizes the most, as taught by Seppanen'832 for the same motivation as stated above in claim 22 and 36.

Regarding claims 24 and 38, the combined system of Losh'181 and Seppanen'832 discloses wherein the detection step comprises performing cell detection by using a scramble code as stated above in Claims 22 and 36 above. Furthermore, Seppanen'832 discloses cell detection by preferentially using a scramble code exhibiting a long stay time in the past (see col.3, line 1-30; col. 4, line 5-29; see col. 7, line 10-49; note that when the mobile unit is in a particular network/cell site whose identification (i.e. scramble code) is not stored in the memory, then the mobile unit must use the other available network/cell site and its identifier stored in the memory. The preference/priority of selecting the network/cell site is based upon the network/cell site, which the mobile unit accesses and utilizes the most (i.e. higher priority network). When a mobile unit accesses and utilizes a particular network/cell site most frequently than others, the mobile unit spends more time in that particular network/cell site longer than other network/cell sites. Thus, it is preferable to use the network/cell site that a mobile unit spends/utilizes most the time in such scenario).

In view of this, having the system of Losh'181 and then given the teaching of Seppanen'832, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Losh'181, by providing a mechanism for a mobile station, which is in a particular cell/network whose identification is not stored in the mobile memory, to utilizes other cell site/network and its identification where the mobile unit accesses/utilizes the most, as taught by Seppanen'832 for the same motivation as stated above in claim 22 and 36.

4. Claims 25 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Losh'181 and Seppanen'832 as applied to claims 16 and 30 above, and further in view of Nystrom (U.S. 6,526,091).

Regarding claims 25 and 39, the combined system of Losh'181 and Seppanen'832 discloses wherein the detection step comprises the step of performing cell detection by preferentially using a scramble code which is stored in the memory means as stated above in Claims 16, 20, 30, and 34.

Neither Losh'181 nor Seppanen'832 explicitly discloses specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection by using a scramble code, which belongs to the specified scramble code group.

However, the above-mentioned claimed limitations are taught by Nystrom'091. In particular, Nystrom'091 teaches specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection by using a scramble code, which belongs to the specified scramble code group (see col. 3, line 29 to col. 4, line 9; note that

MS or remote terminal detects/searches and identifies one or more BSs (or cells sites) utilizing scrambling code groups which are assigned to the scrambling codes).

In view of this, having the combined system of Losh'181 and Seppanen'832, then given the teaching of Nystrom'091, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Losh'181 and Seppanen'832, by providing a mechanism to detect/search scrambling code groups which are assigned to each scrambling codes before searching each individual scrambling code, as taught by Nystrom'091. The motivation to combine is to obtain the advantages/benefits taught by Nystrom'091since Nystrom'091states at col. 3, line 29-44 that such modification would make it possible to efficiently help search/synchronize the remote terminal to the BS and identify the BS-specific scrambling code and improves such synchronization channels in terms of both performance and MS complexity.

Regarding claim 40, the combined system of Losh'181 and Seppanen'832 discloses wherein the detection step comprises the step of performing cell detection in accordance with a priority of a scramble code, which is stored in the memory means as stated above in Claims 16, 21, 30, and 35.

Neither Losh'181 nor Seppanen'832 explicitly discloses specifying a scramble code group at the time of detection of the scramble code, and the step of performing cell detection by using a scramble code, which belongs to the specified scramble code group.

However, the above-mentioned claimed limitations are taught by Nystrom'091. In particular, Nystrom'091 teaches specifying a scramble code group at the time of detection of

the scramble code, and the step of performing cell detection by using a scramble code, which belongs to the specified scramble code group (see col. 3, line 29 to col. 4, line 9; note that MS or remote terminal detects/searches and identifies one or more BSs (or cells sites) utilizing scrambling code groups which are assigned to the scrambling codes).

In view of this, having the combined system of Losh'181 and Seppanen'832, then given the teaching of Nystrom'091, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combined system of Losh'181 and Seppanen'832, by providing a mechanism to detect/search scrambling code groups which are assigned to each scrambling codes before searching each individual scrambling code, as taught by Nystrom'091 for the same motivation as stated above in claims 25 and 39.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N Moore whose telephone number is 703-605-1531. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-305-9509.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Ian N Moore
Examiner
Art Unit 2661

INM
12/29/03

RICKY NGO
PRIMARY EXAMINER